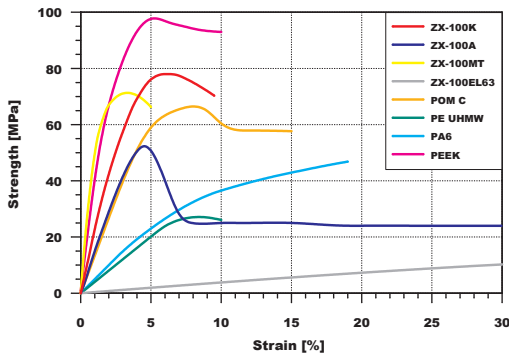
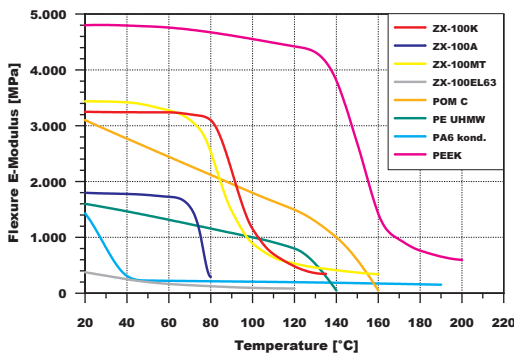


Stress/Strain (ISO 527)



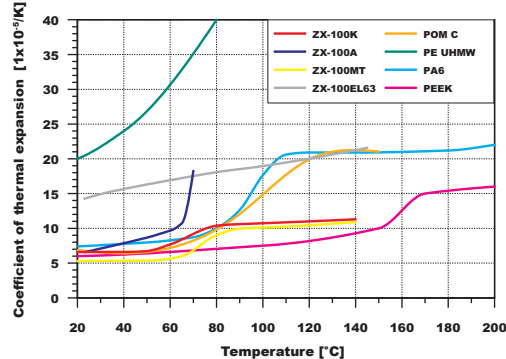
ZX-100K is stiffer and stronger than POM, PA oder PE UHMW, similar elongation at break as PEEK. ZX-100MT reacts up to 60 MPa like PEEK.

Flexural E-Modulus (ISO 178)



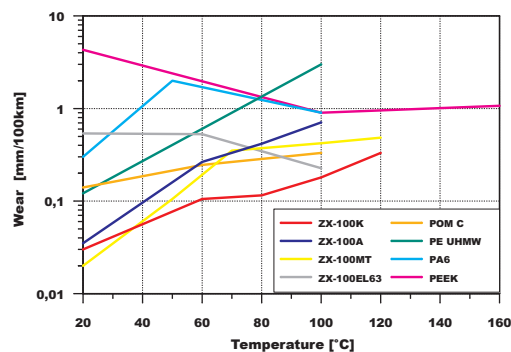
ZX-100K loses, up to 90°C, just a little part of its stiffness. The stiffness decrement of the plastic materials, during elevated temperature, must be taken into consideration.

Thermal expansion coefficient (ISO E830)



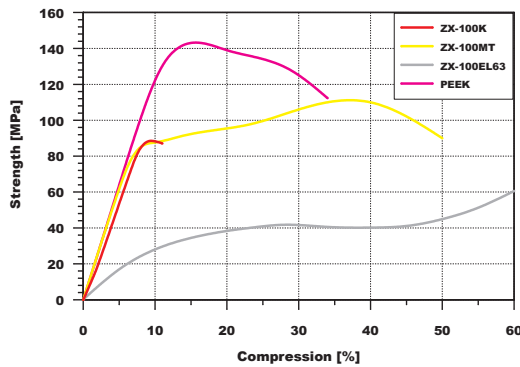
The thermal expansion coefficient of the ZX-100K is smaller than the one of POM, PE UHMW and PA6. Precision applications are possible.

Wear (PVLAB11)*



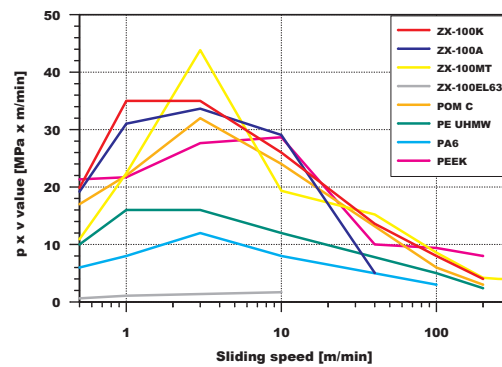
ZX-100K, depending on temperature, is 3 up to 100 times more wear resistant than PEEK. The bearing type POM C9021 SW is 2 to 3 times worse than ZX-100K.

Strength/Compression (ISO 604)



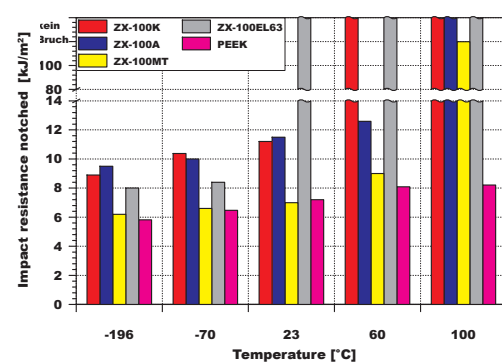
Thanks to the mineral reinforcement ZX-100MT has got an higher stiffness (approx. as PEEK) and a higher compressive strength in comparison to the ground type ZX-100K.

Admissible PV-value (PVLAB07)*



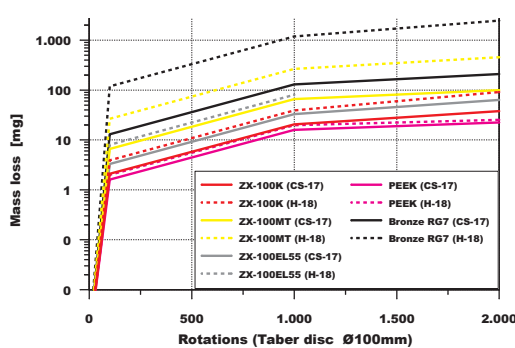
ZX-100K, up to 10 m/min sliding speed, has got a higher PV-value than PEEK. PE UHMW, PA6 are for applications with dynamic friction less appropriated.

Impact resistance notched (ISO 179/1eA)



Elastomer modified ZX-100EL63 has got the highest Charpy v-notch test result. ZX-100K and ZX-100MT lie in the same level of PEEK.

Abrasive Wear (ISO 5470-1)



In the case of coarse abrasive particles (H-18) is ZX-100K approx. 30 times better than bronze and approximately as good as PEEK in the case of mild abrasive particles (CS-17).

Substitution examples

Which material can replace the ZX-100K?

Bronze/Sintered bronze
up to 60°C universal replaceable; the strength must be tested

Targets: cost reduction, friction and wear reduction, dry running condition, corrosion prevention.

PEEK

taking into account the temperature and the chemical resistant required, replaceable.

Targets: cost reduction, wear reduction, increment of the PV-value.

Polyamide

Targets: friction and wear reduction, load increment, increment of the resistance to atmospheric and chemical corrosion. Prevention of strength decrements and volume variations through the moisture absorption.

POM

Targets: friction and wear reduction, load increment, increment of the resistance to weathering, prevention of volume variations through the moisture absorption. It prevents the outgassing of the formaldehyde in case of fire.

PE UHMW

with strong abrasive wear not replaceable

Targets: wear reduction, load increment, stiffness increment, increment of the operating temperature range.

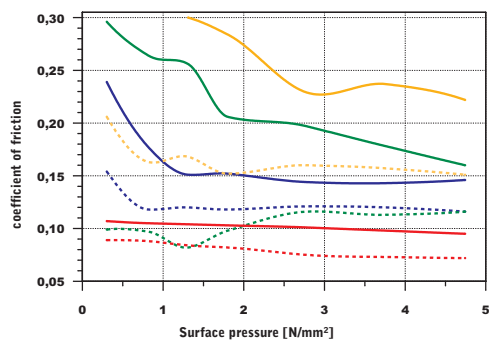
* Information about factory standards can be found on the last page

ZX-100 family - Coefficient of friction*

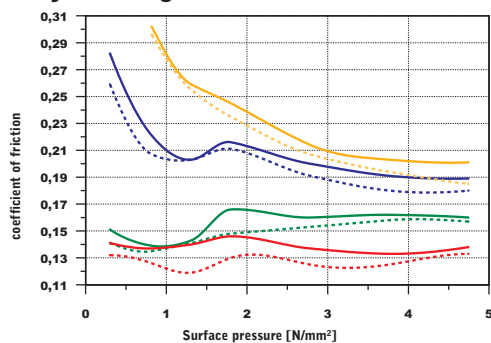
ZX-100K

ZX-100A

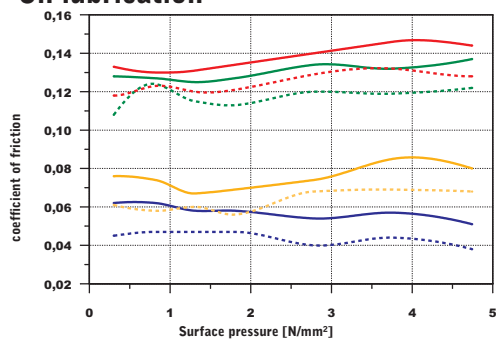
Dry running



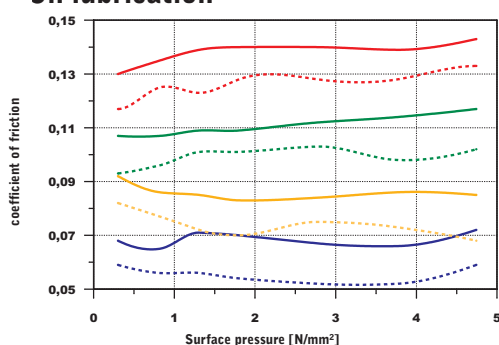
Dry running



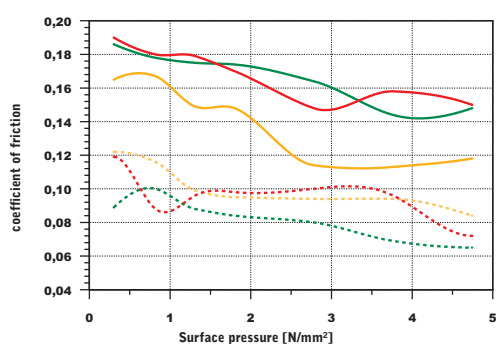
Oil lubrication



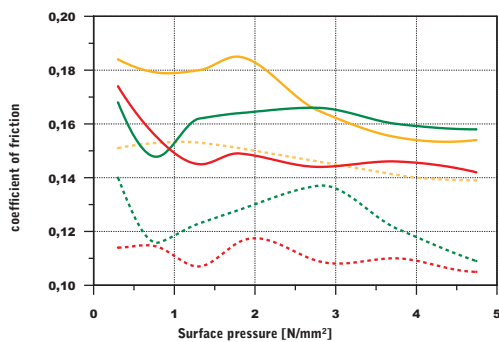
Oil lubrication



Water lubrication



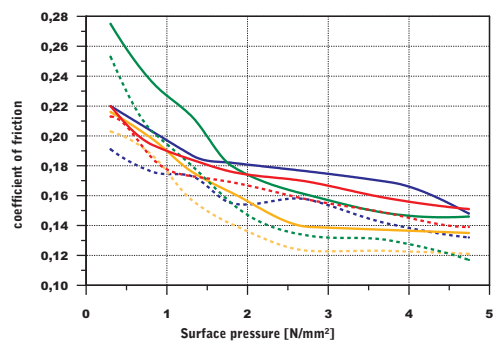
Water lubrication



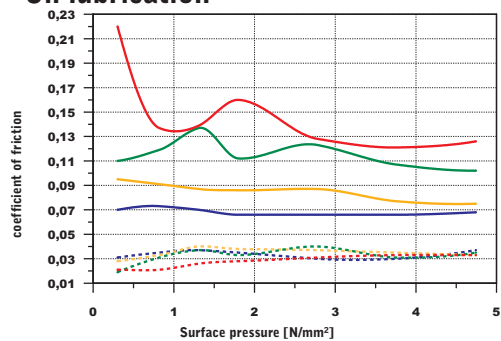
* Determined to factory standard. Information about the test parameters can be found on the last page

ZX-100EL55

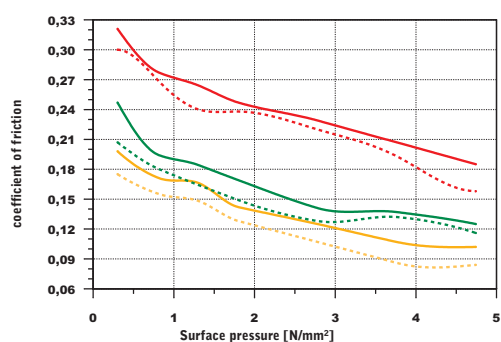
Dry running



Oil lubrication

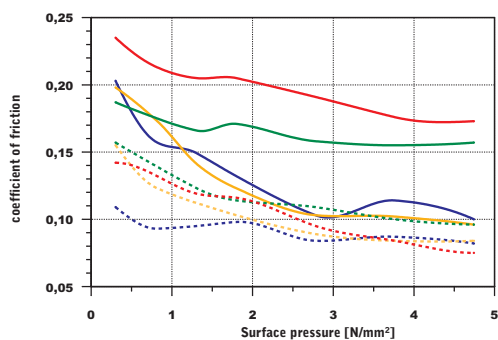


Water lubrication

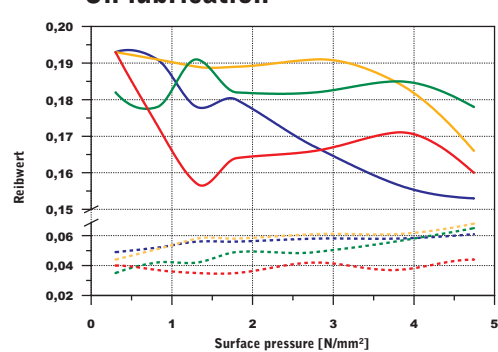


ZX-100EL63

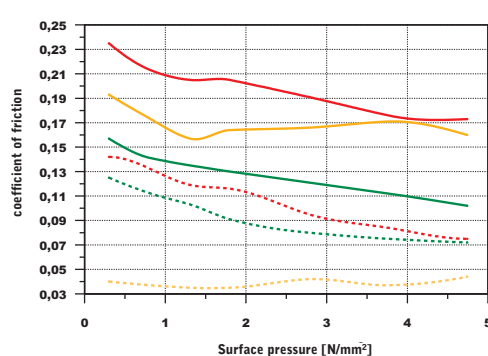
Dry running



Oil lubrication



Water lubrication

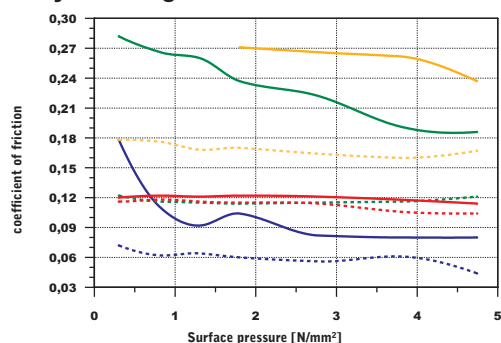


* Determined to factory standard. Information about the test parameters can be found on the last page

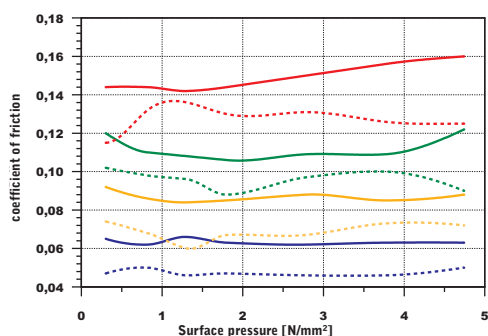
ZX-100 family - Coefficient of friction*

ZX-100MT

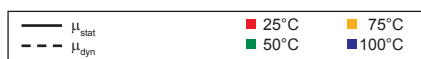
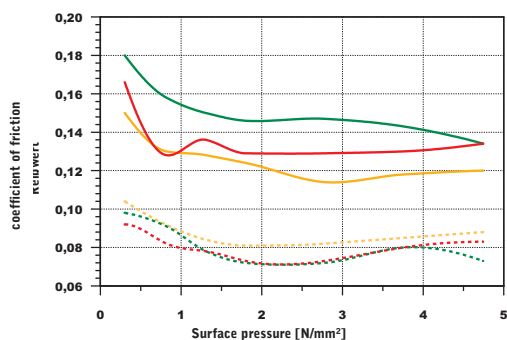
Dry running



Oil lubrication



Water lubrication

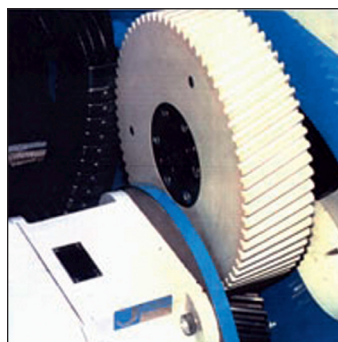


* Determined to factory standard. Information about the test parameters can be found on the last page

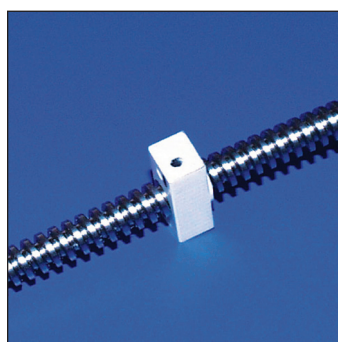
Examples of usage



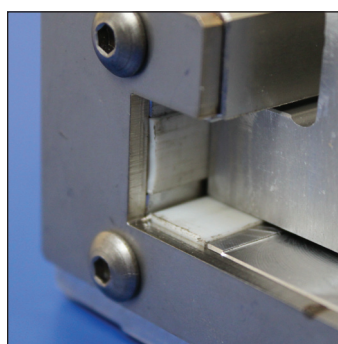
Glue can be easily re-removed from the ZX-100K mould wiper.



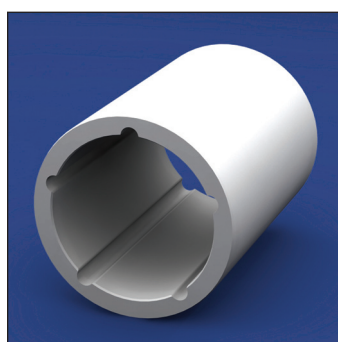
ZX-100K, with a modulus (m) = 5 mm, transmits 38 kW in a dry running condition.



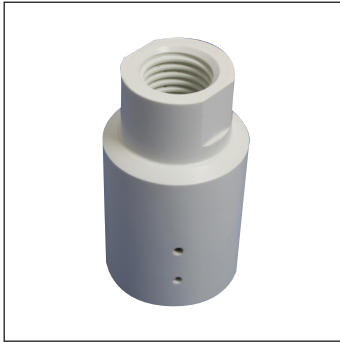
ZX-100K is placed without backflash in actuating units.



ZX-100K is inserted into linear slide guides where it ensures a smooth, stick-slip-free sliding.



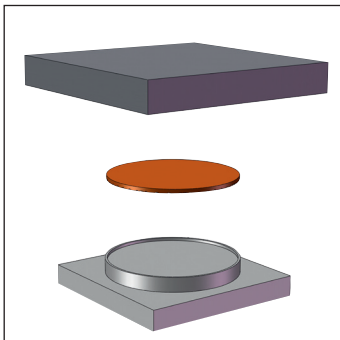
ZX-100K is mounted on water-use-pumps up to 1000 kW.



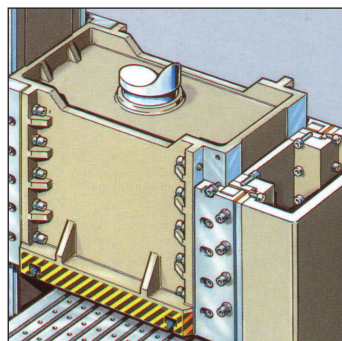
A trapezoidal thread nut (TR40) carries more than 5t in car-lifting platforms.



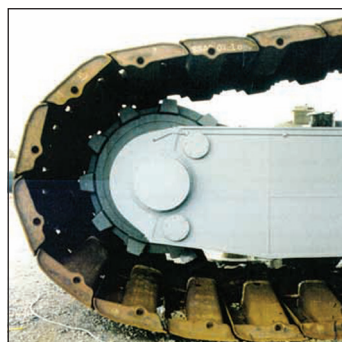
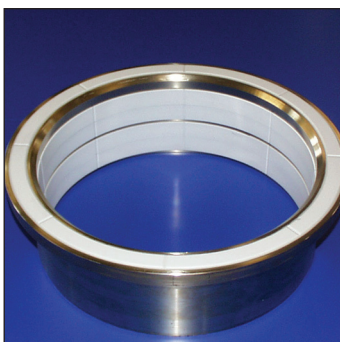
In industrial bakeries components made of ZX-100K are used successfully because of the good anti-adhesive property. The material is approved for direct contact with food and it is conform with the requirements of the plastic regulation EU 10/2011.



ZX-100K has been certified for bridge construction. Sliding pads made of ZX-100K are used as bearing supports in bridges and withstand a permanent load of 30MPa.



ZX-100K drives plungers with a peak load of 120MPa and with 1 μ m thickness tolerance. It is used as main bearing of the measuring devices.



ZX-100K is mounted in chassis for trucks, excavators and mining machines and works in a rough and dirty condition.